Two Best Paths: Devise a two-pass algorithm to find the two most likely paths through
the HMM trellis. Specifically, let the first pass be the Viterbi algorithm, and devise a
second pass over the same trellis to find the second most likely path knowing the most
likely path. Assume if needed that there are no cycles made up entirely of null arcs.

(a) Describe your second pass in the same way the Viterbi algorithm is described in
Chapter 2.

(b) Redraw the trellis of Problem 2(e) in Homework #2, run your algorithm on it by
hand, and color the two most likely paths.

Implementing Viterbi Search: Write a two 2 summary, including any figures, of

Conceptual Model for Continuous Speech Recognition Systems,” a Cambridge
University Engineering Department Technical Report No CUED/F-INFENG/TR.38, Jul 1989,

available at http://mi.eng.cam.ac.uk/reports/abstracts/young_tr38.html.

Continue working on Project #2.